



1652

1567/66364/JPW/FHB

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Hermona Soreq et al.  
U.S. Serial No. : 09/998,042  
Filing Date : November 30, 2001  
For : ACETYLCHOLINESTERASE-DERIVED PEPTIDES  
AND USES THEREOF

1185 Avenue of the Americas  
New York, New York 10036  
April 28, 2003

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

RECEIVED

MAY 05 2003

TECH CENTER 1600/2900

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

To the best of the applicants' knowledge, this Information Disclosure Statement is being submitted before issuance of a first Office Action on the merits under 37 C.F.R. §1.97(b)(3). Therefore, the subject Information Disclosure Statement shall be considered.

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants direct the Examiner's attention to the following references which are listed on the PTO-1449 form attached hereto as **Exhibit A**. Copies of the references are attached hereto as **Exhibits 1-20**.

1. F. Battaini et al., Protein Kinase C Anchoring Deficit in Postmortem Brains of Alzheimer's Disease Patients, *Exp Neurol*, 159:559-564 (1999) (**Exhibit 1**);
2. M. Cardell and T. Wieloch, Time Course of the Translocation and Inhibition of Protein Kinase C During Complete Cerebral Ischemia in the Rat, *J Neurochem*, 61:1308-1314 (1993) (**Exhibit 2**);

3. B. Y. Chang et al., RACK1, a Receptor for Activated C Kinase and a Homology of the Subunit of G Proteins, Inhibits Activity of Src Tyrosine Kinases and Growth of NIH 3T3 Cells, *Mol Cell Biol*, 18:3245-3256 (1998) (**Exhibit 3**);
4. M. Davis et al., Neurotransmission in the rat amygdale related to fear and anxiety, *Trends Neurosci*, 17:208-214 (1994) (**Exhibit 4**);
5. M. Disatnik et al., Phospholipase C- 1 binding to intracellular receptors for activated protein kinase C, *Proc Natl Acad Sci USA*, 91:559-563 (1994) (**Exhibit 5**);
6. G. I. Gallicano et al., PKC - a pivotal regulator of early development, *Bioassay*, 19:29-36 (1997) (**Exhibit 6**);
7. J. Gorman et al., Neuronanatomical Hypothesis of Panic Disorder, Revised, *Am J Psychiatry*, 157:493-505 (2000) (**Exhibit 7**);
8. M. Grifman et al., Functional redundancy of acetylcholinesterase and neuroligin in mammalian neuritogenesis, *Proc Natl Acad Sci USA*, 95:13935-13940 (1998) (**Exhibit 8**);
9. J. P. Herman and W. E. Cullinan, Neurocircuitry if stress: central control of the hypothalamo-pituitary-adrenocortical axis, *Trends Neurosci*, 20:78-84 (1997) (**Exhibit 9**);
10. D. A. Hoffman and D. Johnston, Downregulation of Transient K<sup>+</sup> Channels in Dendrites of Hippocampal CA1 Pyramidal Neurons by Activation of PKA and PKC, *J Neurosci*, 18:3521-3528 (1998) (**Exhibit 10**);

11. J. Liliental and D. D. Chang, Rack1, a Receptor for Activated Protein Kinase C, Interacts with Integrin  $\beta$  Subunit, *J Biol Chem*, 273:2379-2389 (1998) (**Exhibit 11**);
12. R. K. McNamara et al., Differential Subcellar Redistribution of Protein Kinase C Isozymes in the Rat Hippocampus Induced by Kainic Acid, *J Neurochem*, 72:1735-1743 (1999) (**Exhibit 12**);
13. D. Paola et al., Oxidative Stress Induced Increase in Intracellular Amyloid  $\beta$ -Protein Production and Selective Activation of  $\beta$ I and  $\beta$ II PKCs in NT2 Cells, *Biochem Biophys Res Commun*, 268:642-646 (2000) (**Exhibit 13**);
14. E.D. Roberson et al., The Mitogen-Activated Protein Kinase Cascade Couples PKA and PKC to cAMP Response Element Binding Protein Phosphorylation in Area CA1 of Hippocampus, *J Neurosci*, 19:4337-4348 (1999) (**Exhibit 14**);
15. M. M. Rodriguez et al., RACK1, a Protein Kinase C Anchoring Protein, Coordinates of Binding of Activated Protein Kinase C and Select Pleckstrin Homology Domains in Vitro, *Biochemistry*, 38:13787-13794 (1999) (**Exhibit 15**);
16. D. Ron et al., Coordinated Movement of RACK1 with Activated  $\beta$ IIPKC, *J Biol Chem*, 274:27039-27046 (1999) (**Exhibit 16**);
17. F. Tronche et al., Disruption of the glucocorticoid receptor gene in the nervous system results in reduced anxiety, *Nat Genet*, 23:99-103 (1999) (**Exhibit 17**);
18. W. J. Weeber et al., A Role for the  $\beta$  Isoform of Protein Kinase C in Fear Conditioning, *J Neurosci*, 20:5906-5914 (2000) (**Exhibit 18**);

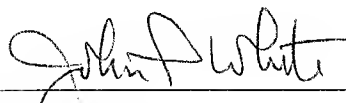
Applicants: Hermona Soreq et al.  
U.S. Serial No.: 09/998,042  
Filing Date: November 30, 2001  
Page 4

19. L. Xu et al., Behavioural stress facilitates the induction of long-term depression in the hippocampus, *Nature*, 387:497-500 (1997) (**Exhibit 19**);
20. S. J. Yarwood et al., The RACK1 Signaling Scaffold Protein Selectively Interacts with the cAMP-specific Phosphodiesterase PDE4D5 Isoform, *J Biol Chem*, 274:14909-14917 (1999) (**Exhibit 20**).

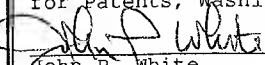
If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

Pursuant to 37 C.F.R. §1.97(b)(3), no fee is deemed necessary in connection with the filing of this Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



John P. White  
Registration No. 28,678  
Attorneys for Applicant(s)  
Cooper & Dunham, LLP  
1185 Avenue of the Americas  
New York, New York 10036  
(212) 278-0400

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.	
 John P. White Reg. No. 28,678	4/28/03 Date



Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 66364/JPW/FHB		Serial No. 09/998,042	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicants: Hermona Soreq et al.			
				Filing Date November 30, 2001		Group	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		F. Battaini et al., Protein Kinase C Anchoring Deficit in Postmortem Brains of Alzheimer's Disease Patients, <i>Exp Neurol</i> , 159:559-564 (1999)					
		M. Cardell and T. Wieloch, Time Course of the Translocation and Inhibition of Protein Kinase C During Complete Cerebral Ischemia in the Rat, <i>J Neurochem</i> , 61:1308-1314 (1993)					
		B. Y. Chang et al., RACK1, a Receptor for Activated C Kinase and a Homology of the $\beta$ Subunit of G Proteins, Inhibits Activity of Src Tyrosine Kinases and Growth of NIH 3T3 Cells, <i>Mol Cell Biol</i> , 18:3245-3256 (1998)					
		M. Davis et al., Neurotransmission in the rat amygdale related to fear and anxiety, <i>Trends Neurosci</i> , 17:208-214 (1994)					
		M. Disatnik et al., Phospholipase C- $\gamma$ 1 binding to intracellular receptors for activated protein kinase C, <i>Proc Natl Acad Sci USA</i> , 91:559-563 (1994)					
		G. I. Gallicano et al., PKC - a pivotal regulator of early development, <i>Bioassay</i> , 19:29-36 (1997)					
		J. Gorman et al., Neuronanatomical Hypothesis of Panic Disorder, Revised, <i>Am J Psychiatry</i> , 157:493-505 (2000)					
		M. Grifman et al., Functional redundancy of acetylcholinesterase and neuroligin in mammalian neuritogenesis, <i>Proc Natl Acad Sci USA</i> , 95:13935-13940 (1998)					
		J. P. Herman and W. E. Cullinan, Neurocircuitry if stress: central control of the hypothalamo-pituitary-adrenocortical axis, <i>Trends Neurosci</i> , 20:78-84 (1997)					
		D. A. Hoffman and D. Johnston, Downregulation of Transient K <sup>+</sup> Channels in Dendrites of Hippocampal CA1 Pyramidal Neurons by Activation of PKA and PKC, <i>J Neurosci</i> , 18:3521-3528 (1998)					
EXAMINER				DATE CONSIDERED			

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicants: Hermona Soreq et al.  
Title: Acetylcholinesterase-Derived Peptides and  
Uses Thereof  
U.S. Serial No. 09/998,042  
Filed: November 30, 2001  
Exhibit A

RECEIVED  
MAY 05 2003  
TECH CENTER 1600/2900



TO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 66364/JPW/FHB		Serial No. 09/998,042	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicants: Hermona Soreq et al.			
				Filing Date November 30, 2001		Group	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		J. Liliental and D. D. Chang, Rack1, a Receptor for Activated Protein Kinase C, Interacts with Integrin $\beta$ Subunit, <i>J Biol Chem</i> , 273:2379-2389 (1998)					
		R. K. McNamara et al., Differential Subcellular Redistribution of Protein Kinase C Isozymes in the Rat Hippocampus Induced by Kainic Acid, <i>J Neurochem</i> , 72:1735-1743 (1999)					
		D. Paola et al., Oxidative Stress Induced Increase in Intracellular Amyloid $\beta$ -Protein Production and Selective Activation of $\beta$ I and $\beta$ II PKCs in NT2 Cells, <i>Biochem Biophys Res Commun</i> , 268:642-646 (2000)					
		E.D. Roberson et al., The Mitogen-Activated Protein Kinase Cascade Couples PKA and PKC to cAMP Response Element Binding Protein Phosphorylation in Area CA1 of Hippocampus, <i>J Neurosci</i> , 19:4337-4348 (1999)					
		M. M. Rodriguez et al., RACK1, a Protein Kinase C Anchoring Protein, Coordinates of Binding of Activated Protein Kinase C and Select Pleckstrin Homology Domains in Vitro, <i>Biochemistry</i> , 38:13787-13794 (1999)					
		D. Ron et al., Coordinated Movement of RACK1 with Activated $\beta$ II PKC, <i>J Biol Chem</i> , 274:27039-27046 (1999)					
		F. Tronche et al., Disruption of the glucocorticoid receptor gene in the nervous system results in reduced anxiety, <i>Nat Genet</i> , 23:99-103 (1999)					
		W. J. Weeber et al., A Role for the $\beta$ Isoform of Protein Kinase C in Fear Conditioning, <i>J Neurosci</i> , 20:5906-5914 (2000)					
		L. Xu et al., Behavioural stress facilitates the induction of long-term depression in the hippocampus, <i>Nature</i> , 387:497-500 (1997)					
		S. J. Yarwood et al., The RACK1 Signaling Scaffold Protein Selectively Interacts with the cAMP-specific Phosphodiesterase PDE4D5 Isoform, <i>J Biol Chem</i> , 274:14909-14917 (1999)					
EXAMINER		DATE CONSIDERED					
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

RECEIVED  
MAY 05 2003  
TECH CENTER 1600/2900